"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZANOVSKAYA, L. YA

TOLYPIN, Yuriy Mitrofanovich; MITYUSHKIN, T.S., nauchnyy redaktor; BREZANOVSKAYA, L.Ya, redaktor; YUSPINA, N.L., tekhnicheskiy redaktor

[Business accounting and net cost at machine-tractor stations and on collective farms] Khozraschet i sebestoimost' v MTS i kolkhozakh. Moskva, Gos. izd-vo kul'turno-prosvetit. lit-ry, 1956. 74 p. (Bibliotechka v pomoshch' lektoru, no.22) (MIRA 9:12)
(Machine-tractor stations--Accounting)
(Collective farms--Accounting)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

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BREZANOVSKAYA, L. YA.

FROLOV, Yuriy Petrovich, zasluzhennyy deyatel' nauki RSFSR, professor; KELER, V.R., nauchnyy redaktor; BREZANOVSKAYA, L.Ya., redaktor; YELAGIN, A.S., tekhnicheskiy redaktor

[The human brain and cybernetics] Mozg cheloveka i kibernetika. Moskva, Gos. izd-vo kul'turno-prosv. lit-ry, 1957. 38 p. (Bibliotechka v pomoshch' lektoru, no.6) (MLRA 10:9)
(CYBERNETICS)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

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BREZANOVSKAYA, L

GROMYKO, Ivan Dement'yevich; KULAKOV, Yevgeniy Vasil'yevich; BREZANOVSKAYA, L. redaktor; YELAGIN, A., tekhnicheskiy redaktor.

[Progressive practices in bringing virgin lands under cultivation] Peredovoi opyt osvoeniia tselinnykh zemel'. Moskva, Gos.izd-vo kul'turno-prosv.lit-ry, 1957. 65 p. (Bibliotechka v pomoshch' lektoru, no.5) (MLRA 10:6)

(Reclamation of land) (Tillage)

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BREZANOVSKAYA, L. YA

YERMOL'YEVA, Zinaida Vassarionovna; RAVICH, Izabella Vladimirovna; PAVASHIN, S.M., nauchnyy redaktor; BREZANOVSKAYA, L.Ya., redaktor; YELAGIN, A.S., tekhnicheskiy redaktor

[Antibiotics] Antibiotiki. Moskva, Izd-vo "Sovetskaia Rossiia," 1957. 35 p. (Bibliotechka v pomoshch' lektoru, no.7) (MLRA 10:10)
(ANTIBIOTICS)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

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BREZANOVSKAYA, L. YA.

BONDARENKO, Ivan Petrovich; BREZANOVSKAYA, L. Ya., redaktor; YELAGIN, A.S., tekhnicheskiy redaktor

[Automatic control in industry] Avtomatika na proizvodstve. Moskva, Izd-vo "Sovetskaia Rossiia," 1957. 40 p. (Bibliotechka v pomoshch' lektoru, no.16) (MLRA 10:10)
(Automatic control)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZANOVSKAYA, L.Ya.

KELER, Vladimir Romanovich; BREZANOVSKAYA, L.Ya., red.; PONOMAREVA, A.M., tekhn.red.

[Agricultural waste products as sources of energy] Otkhody sel'skogo khoziaistva - stochnik energii. Moskva, Izd-vo "Sovetskaia Rossiia," 1957. 45 p. (Bibliotechka v pomoshch' lektoru, no.18) (MIRA 11:3)
(Gas producers) (Fertilizers and manures)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZANOVSKAYA, L. Ya.

ZAKHAROVA, Feodosiya Vasil'yevna, kand.biolog.nauk; MAYOROVA, Ye.T., nauchnyy red.; BREZANOVSKAYA, L.Ya., red.; PONOMAREVA, A.M., tekhn.red.

[Significance of chlorophyll in plant nourishment] Znachenie khlorofilla v pitanii zhivotnykh. Moskva, Izd-vo "Sovetskaia Rossiia," 1957. 47 p. ([Bibliotechka] v pomoshch' lektoru, no.19)(MIRA 10:12)
(Chlorophyll)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

TROITSKAYA, Valeriya Alekseyevna; BREZANOVSKAYA, L.Ya., red.; YUSFINA, N.L., tekhn.red.

[International Geophysical Year] Mezhdunarodnyi geofizicheskii god. Moskva, Izd-vo "Sovetskaia Rossiia," 1957. 78 p. (Bibliotechka v pomoshch' lektoru, no.23) (MIRA 11:4)
(International Geophysical Year, 1957-1958)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BIRYUKOV, Dmitriy Andreyevich; ANOKHIN, P.K., obshchiy red.; BREZANOVSKAYA, L.Ya., red.; ROZEN, E.A., tekhn.red.

[Myth of the soul; present-day science on the psychic activities of man] Mif o dushe; sovremennaia nauka o psikhicheskoi deiatel'nosti cheloveka. Izd.2., ispr. i dop. Moskva, Izd-vo "Sovetskaia Rossia," 1958. 165 p. (MIRA 12:5)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Biryukov). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Anokhin).
(Psychology, Physiological)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZARIC, V.

"Advantages of the maintenance of railroad tracks by tamping and by the plus-minus method." (p. 126).
ZELEZNICE. (Jugoslovenske zeleznice) Beograd. Vol. 10, no. 4, April 1954

SO: East European Accessions List. Vol. 3, no. 8, August 1954

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZARIC, V.

BREZARIC, V. The use of Matis' calculator in solving various problems related to the shifting of railroad tracks. p. 26.

Vol. 12, No. 11, Nov. 1956.
ZELEZNICE
TECHNOLOGY
Beograd, Yugoslavia

So: East European Accession, Vol. 6, No. 2, February 1957

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZARIC, Vjekoslav, inz.

Reconditioning railroad rail surface. Zeleznice Jug 20 no. 8: 35-37 Ag '64.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

RESHETNYAK, V.S., kandidat veterinarnykh nauk; LIPKO, P.I., starshiy veterinarnyy vrach; BREZDEN', I.M., assistent.

New method of casting horses. Veterinariia 32 no.5:54-56 My '55. (MLRA 8:7)

1.Peremyshlyanskiy MTS, L'vovskoy oblasti (for Lipko).2.Kafedra operativnoy khirurgii (for Brezden).
(HORSES) (VETERINARY MEDICINE)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZE, Yuriy Karlovich, aspirant

Static characteristics of a generator with parallel excitation feeding an inductive load. Izv. vys. ucheb. zav.; elektromekh. 34-45 '61. (MIRA 14:9)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy i ustanovok Novosibirskogo elektrotekhnicheskogo instituta.
(Electric generators) (Electric networks)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZE, Yu.K.

Effect of parameters on the behavior of the electromechanical system in a state of equlibrium. Izv.Sib.otd.AN SSSR no.12:14-23 '61. (MIRA 15:3)

1. Novosibirskiy elektrotekhnicheskiy institut.
(Electric generators)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZE, Yu.K.; GANDZHA, L.I.

Behavior of an electromechanical system near the boundaries of the region of its stability. Trudy Inst. avtom. i elektrometr. SO AN SSSR no.6:35-47 '64. (MIRA 17:10)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

GANDZHA, L.I.; LYSHCHINSKIY, G.P.; VASIL'YEV, A.I.; BREZE, Yu.K.

Transient processes and oscillations in a nonlinear generator-motor system with varying magnetic flux. Trudy Inst. avtom. i elektrometr. SO AN SSSR no.6:64-76 '64. (MIRA 17:10)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

GANDZHA, L.I.; VASIL'YEV, A.I.; BREZE, Yu.K.

Stability of the equilibrium state of a potential self-oscillatory generator-motor system. Trudy Inst. avtom. i elektrometr. SO AN SSSR no.6:77-85 '64. (MIRA 17:10)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEANU, Gh.; ARION-PRUNESCU, Elena

Hydrochemical studies on the Bratul Sfintu Gheorghe and the reciprocal influence between this and the Danube Delta. Hidrologia 4:199-213 '63.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BUSNITA, Th.; PRUNESCU-ARION, Elena; BREZEANU, Gh.; ZAMFIR, V.; BALTAC, Margareta; ILIE, Maria

Hydrobiological and piscicultural s tudy of ponds with river pumped water. Studii cerc biol anim 15 no.4:419-441 '63.

1. Membru corespondent al Academiei R.P.R. (for Busnita).

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEANU, Gheorghe

Research on the ichthyoplankton in the Rumanian waters of the Black Sea and especially on the larvae and roe of Engraulis encrassicholus ponticus (Alex). Studii cerc biol anim 13 no.1: 83-92 '61. (EEAI 10:7)
(RUMANIA--ENGRAULIS ENGRASICHOLUS PONTICUS)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEANU, Gheorghe

The 6th conference of an international collective for the study of the Danube River, held in Budapest, and a scientific excursion from Vienna to the source of the Danube River. Studii cerc biol anim 14 no.1:141-146 '62.

1. Institutul de biologie "Tr. Savulescu," Bucuresti.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEANU, Gheorghe

The 6th conference of an international collective for the study of the Danube River, held in Budapest, and a scientific excursion from Vienna to the source of the Danube River. Studii cerc biol anim 14 no.1:141-146 '62.

1. Institutul de biologie "Tr. Savulescu," Bucuresti.

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Distr: 4E2c(j)

Hexachloroplumbates. A new class of complex compounds. G. Spacu and M. Brezeanu, *Rev. chim., Acad. rép. populaire Roumaine* 2, 27-34(1957)(in French); cf. *C.A.* 53, 5949a.—Metal ammine salts of $PbCl_6^{--}$ were prepd. by the reaction of the ammine with $(NH_4)_2PbCl_6$ in Cl water. Prepd. were: *cis*-$[Co(en)_2Cl_2]_2PbCl_6$ (violet), *trans*-$[Co(en)_2Cl_2]_2PbCl_6$ (green), $[Co(py)_4Cl_2]_2PbCl_6$ (green), $[Co(en)_3Cl]PbCl_6$ (yellow), $[Cr(en)_3]ClPbCl_6$ (yellow), and $[Co(NH_3)_6]NO_3PbCl_6$ (yellow). The reaction with $[Co(NH_3)_6]Cl_3$ gave a yellow intermediate, unstable in air, which turned brown. The intermediate was $[Co(NH_3)_6]ClPbCl_6$ (I) which was oxidized by O or OCl^- to $PbCl_6[Co(NH_3)_5]O[Co(NH_3)_5]PbCl_6$. Ag salts. of I also turned brown in a Cl atm. or *in vacuo*. The nitrate analog of I is stable in air. Piperazine.H_2PbCl_6, (urotropine)$_2$.H_2PbCl_6, (quinine.HCl)$_2$.H_2PbCl_6, and (strychnine.HCl)$_2$.$2H_2PbCl_6$.-3strychnine were also prepd. R. F. Trimble, Jr.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

Brezeanu, M.

RUMANIA/Inorganic Chemistry - Complex Compounds. C

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30759

Author : Spacu, P., Gheorghiu, C., Brezeanu, M, Popescu, S.

Title : Syntheses of Complex Compounds. I. Complex Compounds of Trivalent Cobalt

Orig Pub: Studii si Cercetari Chem, 1957, No 3, 517-528

Abstract: No abstract

Card 1/1

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$[PbCl_6][Co(NH_3)_6]$-OH . $3H_2O$ (III). If III is not separated immediately it is converted to the purple $[PbCl_6][Co(NH_3)_6]$ O ··· (H) ··· O $[Co(NH_3)_6][PbCl_5]$ (IV). A compound analogous to IV is obtained from $Cr(NH_3)_6]Cl_3$. Compound similar to III cannot be obtained in this case. It is not possible to prove the presence of the hydroxyl group in III. The case is analogous to that of $[EnNO_2NH_2NO_2NH_3Pt]$ (OH)Cl, studied by I.I. Chernyayev and F.M. Klyachkina (Izv. Inst. Platiny, 1929, 7, 85). IV is analogous in formation (as a result of hydrolysis) and properties to the compound $[(NH_3NO_2)_2NO_2H_2OPt]_2$ O described by I.I. Chernyayev and G.S. Muraveyskaya (Izv. Sektora platiny, IONKh AN SSSR, 1950, 25, 35). Bromides and iodides of hexammino-cobalt (or -chromium, respectively)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

RUMANIA/Inorganic Chemistry. Complex Compounds. C

Abs Jour: Ref Zhur-Khim., No 13, 1958, 42832.

yield complex compounds containing Pb(2+). Yellow compounds of the composition $[Co(NH_3)_6][PbCl_6]X \cdot nH_2O$, wherein X -- NO_3, ClO_3, NO_2, 1/2 SO_4, are obtained on addition of I to dilute solutions of luteo-salts of oxygen-containing acids. By the action of concentrated HCl all these yellow compounds are converted to the purple form IV. If solutions of I and $[Co(NH_3)_6]Cl_3$ are mixed and a concentrated solution of KNO_3 is added, without filtering off II, there is obtained the yellow $[Co(NH_3)_6][PbCl_6]NO_3 \cdot 3H_2O$. This confirms the fact that valency of Pb remains equal to 4. Over P_2O_5 the purple dodecamminodiol-chromic salt loses 1 molecule of water, and the color changes to dark-brown, which evidences a conversion of the diol to an oxo-

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C

Country : Rumania
Category : Inorganic Chemistry - Complex Compounds.

Abs. Jour : RZhKhim., No 13, 1959 45338

Author : Spacu, P., Gheorghiu, C., Brezeanu, M., and
Institut. : Not given
Title : New Syntheses in the Chemistry of Complex Compounds. I. Complex Compounds of Cobalt (III).

Orig Pub. : Rev Chim (Rumania), 3, No 1, 127-137 (1958)

Abstract : A simple method for the preparation of amino- and aminoacido-complexes of Co(III) is proposed. An aqueous solution of a Co(II) salt is treated with the appropriate base (NH_3, En [?], pyridine, o-phenanthroline (Phen), α, α'-dipyridyl), amino acid, or with dimethylglyoxime (DH_2), depending on the group which it is desired to coordinate with the central atom, after which $NaClO_2$ is added at room temperature or with ice cooling. A total of 23 complexes have been prepared by this

Card: 1/3

Popescu, S.

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Country : Rumania C
Category : Inorganic Chemistry - Complex Compounds

Abs. Jour : RZhKhim., No 13, 1959 45338

Author :
Institut. :
Title :

Orig Pub. :

Abstract : procedure, including: hexamines, acidopentamines, diacidotetramines. These products were used in the syntnesis of $[Co(Phen)_3](ClO_2)_3$, a yellow substance; $[Co(Phen)_2(ClO_2)_2]ClO_2$, a reddish-pink substance; $[Co(DH)_2(OH_2)_2]Cl$, a greenish-yellow substance; $[Co(CH)_2Cl_2]Ag$, a greenish-brown substance; and $[Co(Asp)_3]\cdot 3H_2O$, a yellow substance insoluble in alcohol, ether, and $CHCl_3$ (Asp = L-asparagine). A method is proposed for the quantitative determination of SCN^- in simple and complex rhodanides

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, Petru; BREZEANU, M.; KRIZA, A.

New syntheses in the chemistry of complex compounds. II. Complex compounds of cobalt(III) with dioxime. Studii cerc chim 9 no.1:149-158 '61. (EEAI 10:9)

1. Laboratorul de chimie anorganica al Universitatii "C. I. Parhon", Bucuresti. 2. Comitetul de redactie, STUDII SI CERCETARI DE CHIMIE (for Spacu).

(Complex compounds) (Cobalt) (Oximes)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, M.

Study of lead complex thiosulfates. Studii cerc chim 9 no.1:187-196 '61. (EEAI 10:9)

1. Laboratorul de chimie anorganica al Universitatii "C. I. Parhon", Bucuresti. 2.Comitetul de redacte, STUDII SI CERCETARI DE CHIMIE(for Spacu).

(Lead) (Thiosulfates)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, M.

Conductometric study of the complex lead thiosulfates. Studii cerc chim 9 no.4:615-619 '61.

1. Universitatea "C.I.Parhon", Facultatea de chimie, Laboratorul de chimie anorganica, Bucuresti. 2. Membru al Comitetului de redactie, "Studii si cercetari de chimie" (for Spacu).

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, M.; GHEORGHIU, C.; CRISTUREAN, E.

Oxidizing sodium chlorite in quantitative analytic chemistry. Note V. Use of sodium chlorite in the separation of sulfurous ores. Rev chimie Min petr 12 no.12:723 D '61.

1. Catedra de chimie anorganica, Universitatea "C. I. Parhon," Bucuresti.

(Sulfur mines and mining) (Sodium chlorite)
(Oxidation)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, Maria; LEPADATU, C.

On the cis-trans isomeric compound (Co $Dipy_2Cl_2$) Cl. Rev chimie Roum 8 no.8/9:475-485 Ag-S '64.

1. Research Institute of Inorganic Chemistry, Rumanian Academy.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, Maria; LEPADATU, C.

Study of the cis and trans isomerisms of the $[Co\ dpy_2Cl_2]Cl$ combination. Studii cerc chim 13 no.8/9:525-534 Ag-S '64.

1. Center of Inorganic Chemistry Research of the Rumanian Academy, 89 Splaiul Independentei, Bucharest.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, Maria; GHEORGHIU, Constanta; CONSTANTINESCU, O.; PASCARU, I.

Spectra of electronic paramagnetic resonance of some Cu(II) complex combinations. Studii cerc chim 13 no.12:851-858 D '64.

1. Chair of Inorganic Chemistry of the University and the Institute of Atomic Physics of the Rumanian Academy, Bucharest, 89 Splaiul Independentei and P.O.Box 35.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SIMON, Z.; BREZEANU, Marieta

Trans effect in plain complex compounds of bivalent platinum.
Rev chimie Roum 9 no.2:113-119 F '64

1. Research Center for Physical Chemistry, Str. Dumbrava Rosie, 23, Bucharest.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

SPACU, P.; BREZEANU, Marieta; GHEORGHIU, Constanta; CONSTANTINESCU, O.; PASCARU, I.

ESR-spectra of some Cu(II)-compounds. Rev chimie Roum 9 no.12: 801-808 D '64.

1. Chair of Inorganic Chemistry of the University and Institute of Atomic Physics, Rumanian Academy, Bucharest. Submitted September 30, 1964.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEANU, Ortansa, ing.; FLORESCU, Maria, ing.

Considerations on the quality of imported cotton fibers.
Ind text Rum 14 no.9:385-389 S '63.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

HAGIESCU, D.; ANDRESTER, M.; CIORANESCU-DINU, Maria; in collaboration with VEBER, V.; BREZEANU, Paula; BUTON, L.

Some clinical aspects of tuberculosis in the aged. Rumanian M Rev. no.2:28-31 Ap-Je '60; (TUBERCULOSIS, PULMONARY in old age)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

ISZLAI, Adalbert; HERTANU, D., coresp.; BREZEANU, V., tehnician

The Front of the People's Democracy. Constr Buc 17 no.789:3 20 F '65.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZENJAK, M.

Circular saws with inserted teeth. p. 161.
(Drvna Industrija, Vol. 7, no. 11/12, Nov./Dec. 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZEZINSKI, J.

WIADOMOSCI CHEMICZNE. Vol. 12, No. 7, July 1959

Theory of urea-formaldehyde condensation. P. 393.

SCIENCE

Monthly List of East European Accessions (EEAI) LC, Vol. 3, No. 2, February 1959, Unclass.

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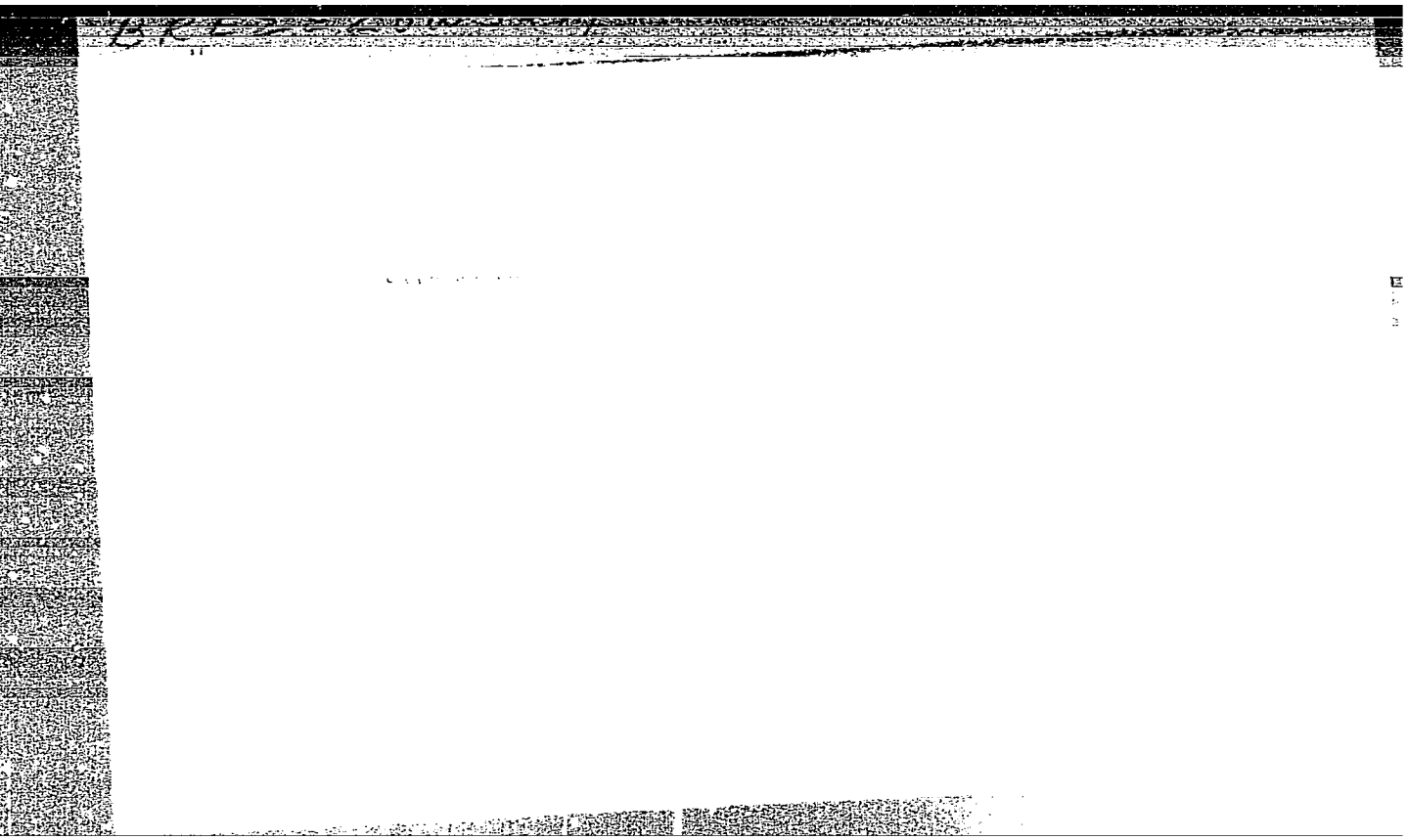

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGIN A.S.

127-58-1-24/28

AUTHORS: Fridman, B.N.; Brezgin, A.S., and Bocharov, A.Z.

TITLE: Increase of Bit Durability (Povysheniye stoykosti dolot)

PERIODICAL: Gornyy Zhurnal, 1958, Nr 1, p 75 (USSR)

ABSTRACT: The Yestyunin open mine of the Vysokaya Gora Mine Administration had difficulties because of the high wear of bits. In order to increase their durability, a new technological process of thermal treatment has been developed and applied. A more intensive hardening medium, the 10% aqeous solution of NaCl, and the day-and-night permanent temperature control of the hardening by thermocouples are characteristic features of the new technological process. Comparison of experimental data shows that the durability of the bits hardened by the new method was twice as high as those hardened in water. As a result, the consumption of bits has been reduced by 33%.
The article contains 1 figure and 2 graphs.

ASSOCIATION: Vysokogorskoye rudoupravleniye (Vysokaya Gora Mine Administration)

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Card 1/1 1. Drills-Hardening-Test results 2. Mines-Equipment

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DANCHEV, P.S., kand.tekhn.nauk; KOLIBABA, V.L., gornyy inzh.; BREZGIN, A.S., gornyy inzh.

Boring and blasting operations in the Yestyuninskoye Mine. Vzryv. delo no.48/4:38-44 '61. (MIRA 15:2)

1. Vysokogorskoye rudoupravleniye. 2. Ural'skiy filial AN SSSR (for Danchev).
(Yestyuninskoye region--Blasting) (Boring)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

DANCHEV, P.S.; PRYNICHNIKOV, V.A.; BREZGIN, A.S.; CHIRKOV, G.A.

Use of short-delay blasting in the Yestyuninskoye Mine. Trudy Gor.-geol. inst. UFAN SSSR no.57:29-32 '61. (MIRA 15:3)
(Yestyuninskoye region (Sverdlovsk Province)--Blasting)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGIN, V.D. aspirant (Yaroslavl')

Statistical characteristics of mortality from cardiovascular diseases among the population of Yaroslavl. Sov. zdrav. 22 no.7:32-37 '63 (MIRA 16:12)

1. Iz kafedry organizatsii zdravookhraneniya Yaroslavskogo meditsinskogo instituta (zav.,- dotsent V.N.Yemel'yanov).

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1. BREZGO, B.

2. USSR (600)

4. Latgalia - Maps

7. Maps of Latgalia from the second half of the 18th century and the beginning of the 19th. Latv. PSR Zin.Akad. Vestis. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

AUTHORS: Brezgulevskiy, I.V. and Yalymov, N.G., Mining Engineers and Ivankov, L.I., Engineer-Geologist SOV-127-58-10-2/29

TITLE: On the Mining of the Dzhezkazgan Deposits Without Leaving a Protective Ore Crust (O razrabotke Dzhezkazganskogo mestorozhdeniya bez ostavleniya rudnoy korki)

PERIODICAL: Gornyy zhurnal, 1958, Nr 10, pp 8-11 (USSR)

ABSTRACT: Experimental works conducted jointly by the Unipromed' and the Administration of the Dzhezkazgan Mines showed that the introduction of a compulsory caving-in system gave much better results than those achieved by the old room-pillar system. According to the old system it was considered necessary to leave a protective ore crust, 1 or 2 m thick, in places where red sandstone directly overlies the ore body. This crust was not extracted, so that the losses in ore left in such crusts represented 50% of general ore losses. It was calculated that over 1,000,000 tons were lost in this way. Moreover, 1,5-3 m thick layers were not exploited at all. These experiments also showed that the protective ore crust did not improve the safety of mining operations. When the red sandstone was exposed, its first layer fell, but the next layer held fast and the whole massif remained solid for 6-7 months.

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

On the Mining of the Dzhezkazgan Ore Crust

SOV-127-58-10-2/29

Deposits Without Leaving a Protective

Thus ore layers 1,5 to 6,5 m thick could be exploited without leaving the ore crust if the ceiling was regularly inspected after each shift. The reinforcement of such ceilings by beams 2,5 m long at 1 m interval permitted exploitation of ore layers of any importance with the least loss of ore. There are 5 diagrams, 1 photo and 1 table.

ASSOCIATION: Unipromed'. Shakhta Nr 45 Dzhezkazganskogo rudouprav-leniya (Mine Nr 45 of the Dzhezkazgan Mining Administration)

1. Mining industry--USSR 2. Ores--Production 3. Mining engineering --USSR 4. Underground structures--Design

Card 2/2

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BREZGULEVSKIY, I.V., insh.; SOLODOV, K.G., insh.; KANAFIN, K., insh.

New mining system used in the Dzhezkazgan Mines. Bezop. truda v prom. 3 no.12:13-15 D '59. (MIRA 13:4)
(Dzhezkazgan District--Copper mines and mining)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGULEVSKIY, I.V.

Mine roof bolting with reinforced concrete rods. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.12:3-4 D '64. (MIRA 18:3)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

KHRESKIN, A.I., inzh.; BREZGUNOV, K.V.; IVANOV, A.P.

Snow drift control. Puti i put. khoz. no.4:18-19 Ap '59.
(MIRA 13:3)

1.Starshiy dorozhnyy master, stantsiya Abdulino, Ufimskoy dorogi (for Khreskin). 2. Zamestitel' nachal'nika distantsii, g. L'vov (for Brezgunov). 3.Master mekhanizheskikh masterskikh, stantsiya Orel, Moskovsko-Kursko-Donbasskoy dorogi (for Ivanov).
(Railroads--Snow protection and removal)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V.; MUKHAMEDZHANOV, M.; KAPIN, V.V.; SOKOLOV, Ye.P., inzh. (g.Vil'nyus); CHAYKIN, G.V.; ISHUTIN, V., dorozhnyy master

Letters to the editor. Put' put.khoz. no.9:46-47 S '59.
(MIRA 12:12)

1. Zamestitel' nachal'nika distantsii puti, g.L'vov (for Brezgunov). 2. Zamestitel' nachal'nika distantsii puti, st. Zhana-Semey, Kazakhskoy dorogi (for Mukhamedzhanov). 3. Starshiy dorozhnyy master, st.Shar'ya, Severnoy dorogi (for Kapin). 4. Starshiy dorozhnyy master, st.Millerovo, Yugo-Vostochnoy dorogi (for Chaykin). 5. Putevaya mashinnaya stantsiya-77 (PMS-77), st.Sukhoye, Oktyabr'skoy dorogi (for Ishutin).
(Railroads)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V.

Uniting efforts for the maintenance of cleanliness and order
Put' i put.khoz. no.10:39 O '59. (MIRA 13:2)

1. Zamestitel' nachal'nika distantsii puti, L'vov.
(Volga Valley--Railroads)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V. (L'vov)

Supplies wasted along the track. Put' i put.khoz. 4 no.4:32 Ap '60. (MIRA 13:7)
(Railroads--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V.

Don't put up with shortcomings. Put'i put.khoz. 5 no.5:41 My '61.
(MIRA 14:6)

1. Zamestitel' nachal'nika distantsii puti, st. L'vov.
(Railroads--Maintenance and repair)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V.

Quality of the wiring and marking of ties. Put' i put.khoz. 6 no.11:19 '62. (MIRA 16:1)

1. Zamestitel' nachal'nika L'vovskoy distantsii puti.
(Railroads—Ties)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, K.V.

Correct method of installing bootlegs. Put' i put.khoz. no.7:20 '62. (MIRA 15:7)

1. Zamestitel' nachal'nika L'vovskoy distantsii puti.
(Railroads—Electronic equipment)

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BREZGUNOV, K.V.

Liberate the divisions from work which can and should be done by the factories. Put' i put.khoz. 7 no.7:45 '63. (MIRA 16:10)

1. Zamestitel' nachal'nika L'vovskoy distantsii puti.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOV, V.S.; LIPIN, V.N.; MATROSOVA, V.R.; NAUMOVA, Ye.K.

Comparative evaluation of the bactericidal properties of aquargen and antibiotics in pure microbial cultures and their associations. Nauch. trudy Kaz. gos. med. inst. 14:121-122 '64.

(MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova) i kafedra obshchey khimii (zav. - dotsent Ye.M.Kozyrev) Kazanskogo meditsinskogo instituta.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOVA, T.G. [Brezhunova, T.H.]

Purine and nucleic acid content of silkworms (Bombyx mori) infected with polyhedrosis (jaundice). Ukr.biokhim.zhur. 31 no.1:59-66 '59. (MIRA 12:6)

1. Department of Farm-Animal Physiology and Department of Biochemistry of the Academy of Agricultural Sciences and the Genetics Division of the Institute of Zoology of the Academy of Sciences of the Ukrainian S.S.R.
(SILKWORMS--DISEASES AND PESTS) (PURINES) (NUCLEIC ACIDS)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZGUNOVA, T.G. [Brezhunova, T.H.]

Effect of glucose and sodium citrate on respiration and the amount of purines and nucleic acids in pupae of the silkworm Bombyx mori infected with grasserie. Ukr. biokhim. zhur. 33 no.3:363-373 '61. (MIRA 14:6)

1. Kafedra fiziologii sel'skokhozyaystvennykh zhivotnykh, kafedra biokhimii Ukrainskoy akademii sel'skokhozyaystvennykh nauk, otdel genetiki Instituta zoologii AN USSR.

(SILKWORMS—DISEASES AND PESTS) (SODIUM CITRATE) (GLUCOSE)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZHENKO, A.I.

Necrobiosis lipoidica. Vest. derm. i ven. 37 no.2:17-21 F'63.
(MIRA 16:10)

1. Iz kliniki kozhno-venericheskikh bolezney (nachal'nik - chlen-korrespondent AMN SSSR prof. S.T.Pavlov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

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BREZHENKO, A.I.

Cancer of the skin developing against a background lichen ruber planus. Vest.derm.i ven. no.9:84-87 '61. (MIRA 15:5)

1. Iz kafedry kozhnykh i venericheskikh bolezney (nach. - chlen-korrespondent AMN SSSR prof. S.T. Pavlov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(LICHEN PLANUS) (SKIN--CANCER)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

TENENBAUM, A.E.; GUREVICH, I.L.; BREZHNEV, A.I.

Producing courmarone-indene resins and their use in industry. Nefteper. i neftekhim. no.8:16-18 '64. (MIRA 17:10)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

TENENBAUM, A.E.; GUREVICH, I.L.; BREZHNEV, A.I.

Obtaining coumarone-indene resins from the pyrolosis products of petroleum fractions. Nefteper. i neftekhim. no.9:26-27 '64.
(MIRA 17:10)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina.

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BREZHENKO, A.I. (Leningrad)

Mucinous alopecia (Pinkus). Vest. derm. i ven. 38 no.3:44-46 Mr '64. (MIRA 18:4)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

NURULLIN, SH. K.; BREZHNEV, A. M.

Bones - Tuberculosis

Bedside table for patients in osteo-articular tuberculosis sanatoria, Probl. tub., No. 6, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZHNEV, A. V.

BREZHNEV, A. V. "Investigation of the Operation of a Drilling Instrument during Shock Drilling." Min Higher Education USSR. Moscow Mining Inst imeni I. V. Stalin. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences)

(So: Knizhaya Letopis', No. 17, 1956

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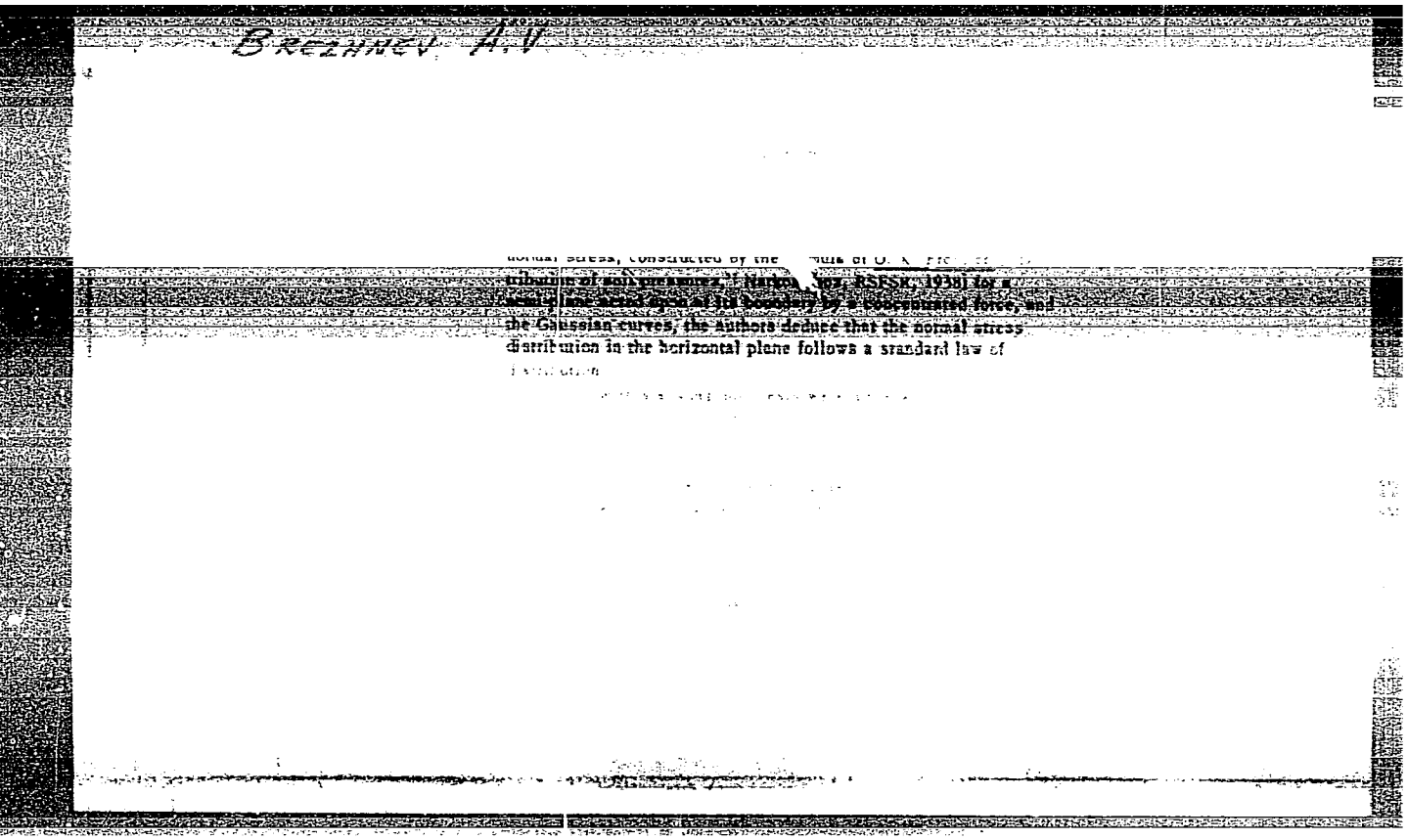

BREZHNEV, A.V.

normal stress, constructed by the [illegible] of O. A. [illegible]
tribution of soil pressures at Harkov [illegible] (SSSR, 1938) for a
semi-plane acted upon at its boundary by a concentrated force, and
the Gaussian curves, the authors deduce that the normal stress
distribution in the horizontal plane follows a standard law of

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Kharitonov, N.I + Brezhnev, etc

exit of the ball from the board after passing between the pegs
recorded in terms of the number of

vestigated. Comparison of the theoretical curves constructed by
the Fröhlich equations with the distribution curves obtained ex-
perimentally showed that for any

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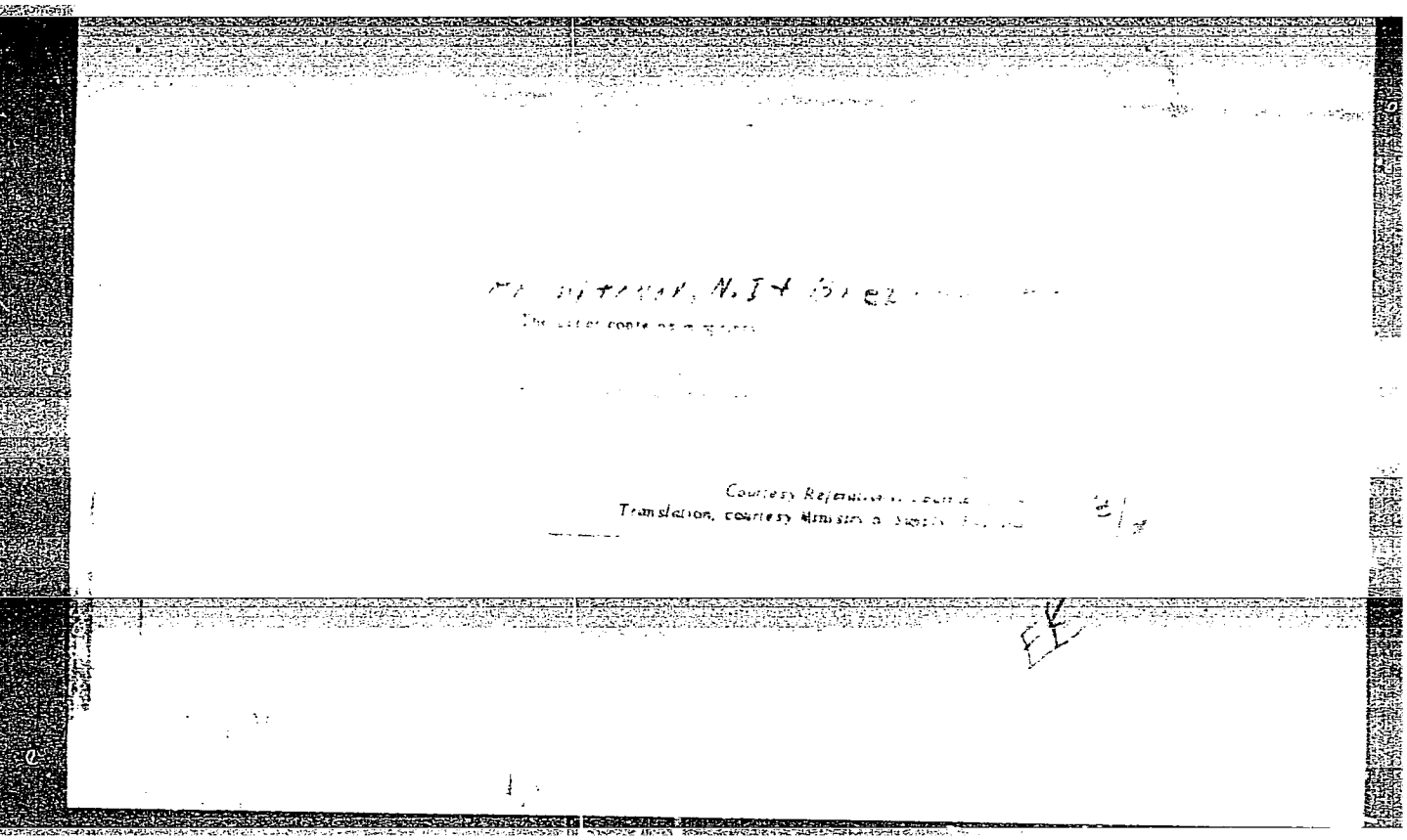

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZHNEV, B. G.

PA 57T92

USSR/Phys Feb 1947
Electrons - Emission
Cathodes - Emission

"Electronic Emission From Complex Stibium-Caesium Cathode Under Action of Strong Electric Fields," B. G. Brezhnev, Physicotech Inst, Acad Sci USSR, 7 pp

"Zhur Eksper i Teoret Fiz" Vol XVII, No 2, 117

Electronic emission from complex stibium-caesium cathode under action of strong electric field increases considerably with growth of wave length of the light. In the absence of light, fields of 10^5 V/cm produce noticeable autoelectronic emission. It is shown that electrons extracted by the field

57T92

USSR/Phys (Contd) Feb 1947

belong to very narrow energy spectrum. Visual electronic observation of emitting surface gives varied picture. In the case of photoemission the whole illuminated surface emits uniformly, whereas in autoelectronic emission only separate places with greatest field gradient radiate.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306910017-4

BREZHNEV, B. G.

AUTHORS: Artsimovich, L. A., Shchepkin, G. Ya., Zhukov, V. V., 89-12-1/29
Makov, B N., Maksimov, S. P., Malov, A. F., Nikulichev, A. A.,
Panin, B. V., Brezhnev. B. G.

TITLE: Electromagnetic Isotope Separating Device for Heavy Elements of High Resolving Power. (Elektromagnitnaya ustanovka s vysokoy razreshayushchey siloy dlya razdeleniya izotopov tyazhelykh elementov)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 483-491 (USSR)

ABSTRACT: The constructed apparatus, which shall be able to separate clearly isotorpes even with a relative mass difference of 1/240, must have a high dispersion, a high resolving power and especilly well stabilized magnetical andelectrical fields. An axial-symmetrical field, the dispersion of which is proportional to the square of the focusing angle, was used as a magenetic field. The focusing angle is 225°. The measured dispersion of the apparatus amounts to 20 mm at a relative mass difference of the masses to be separated of 1%.
The stabilization of the magnetic field of the separating device had been brought to 0,005% by the aid of a valve scheme. The Acceleration velocity of the source of ions (up to 40kV) is stabilized by a double cascade scheme up to 0,01%. But also the current in the discharge source of ions is stabilized. The vacuum chamber is constructed from stainless steel, in a (sharpe. The

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pump system has been arramged sp tha a working vacuum of $4\text{-}6.10^{-6}$ mm Hg is always guaranteed. When separating toxic materials moving lowks, valves and regulators from synthetic and rubber are applied. The high vaccum here is maintained by means of a surge chamber.

A normal gas discharge source of ions, in which the material to be separated can be heated up to 1000^{0}C, is used as source of ions.

Boxes from copper or graphite are usually used as targets. The following results were obtained.

Concentration factor:

75 to 302	for Pb^{208}	concentrated from the natural lead-isotope mixture	
22 to 71	for Pb^{207}	-"-	
151 to 214	for U^{238}	concentrated from natural uranium	
985 to 1420	for U^{236}	-"-	
1000 to	for Pu^{239}	concentrated from samples of different isotrope compositions	
190 to 300	for Pu^{240}	-"-	

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Electromagnetic Isotope Separating Device for Heavy Element of 89-12-;/29
High Resolving Power.

160 to 360 for Pu^{241} Concentrated from samples of different isotope compositions

There are 4 tables, 8 figures and 3 Slavic references.

SUBMITTED: August 21, 1957.

AVAILABLE: Library of Congress

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BREZHNEV, B.G.

ANDRIANOV, A. M., BAZILEVSKAYA, O. A., BRAGINSKIY, S. I., BREZHNEV, B. G., PODGORNY, I. M., PROKHOROV, Y. G., FILIPPOV, N. V., FILIPPOVA, T. I. and KHRABROV, V. A.

"Experimental Investigation of High Current Pulse Discharges. "

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sept 58.

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IOFFE, M. S., MAKOV, B. N., BREZHNEV, B. G., FRADKIN, G. M. and MOROSOV, P. M.
BREZHNEV, B.G.

"An Ion Source for Stable Isotope Separation."

paper to be presented at 2nd UN Intl.' Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sept 58.

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BREZHNEV, B. G.

21(6) SOV/2601

PART I BOOK EXPLOITATION

International Conference on the Peaceful Uses of Atomic Energy, 2d., Geneva, 1958

Doklady sovetskikh uchenykh; materialy fizika (Reports of Soviet Scientists; Physical Physics) Moscow, Atomizdat, 1959. 558 p. (Series: Trudy, Vol. 1) 8,000 copies printed.

Eds. (Title page): A.I. Alikhanov, Academician; V.I. Veksler, Academician; and N.A. Vlasov, Candidate of Physical and Mathematical Sciences; Ed. of this Volume: K.D. Synkov and B.P. Zavoyskiy, Candidates of Physical and Mathematical Sciences; Ed. (Inside book): O.L. Kuznetsova; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 45 papers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1958.

COVERAGE: It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle acceleration and of weak and strong interactions. The first paper by L.A. Artsimovich presents a review of Part I and its particular problems in this field.

The papers in Part II deal in detail with various problems in nuclear physics, such as the fission of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and rockets, described in a paper by E.L. Vinov. The Russian-language edition of the proceedings of the conference is published in 15 volumes. The first 6 volumes contain all the papers presented by Soviet scientists as follows: Volume (1), Experimental Physics (Nuclear Physics); Volume (2), Theoretical Physics; Volume (3), Experimental Physics (Nuclear Power); Volume (4), Nuclear Power Engineering; Volume (5), Radiochemistry (Chemistry of Radioelements and of Radiation Transformations); Volume 6, Radiobiology and Medicine (Radiobiology and Radiation Medicine); Volume (7) Polonium and Other Alpha-Active Isotopes (Production and Use of Isotopes). The other 10 volumes contain selected papers presented at the Conference by non-Soviet scientists. In the present volume the papers have been arranged in the English language edition of the proceedings. Titles of papers in the Russian language edition of the proceedings are identical with the titles given in the English edition. Report 2211, by Atomizdat, et al, is numbered 2556 in the English edition.

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1. International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; polucheniye i primeneniye izotopov (Reports of Soviet Scientists; Production and Application of Isotopes) Moscow, Atomizdat, 1959. 568 p. (Series: Its: Trudy, vol. 6) 8,000 copies printed.

Eds. (Title page): G.V. Kurdyumov, Academician, and I.I. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Z.D. Andreyenko; Tech. Ed.: Z.D. Andreyenko.

PURPOSE: This book is intended for scientists, engineers, physicians, and biologists engaged in the production and application of atomic energy to peaceful uses; for professors and graduate and undergraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

COVERAGE: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds, 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture, and 3) dosimetry of ionizing radiation. Volume 6 was edited by: S.V. Levinskiy, Candidate of Medical Science; V.M. Prusakov, Candidate of Chemical Sciences; and V.I. Spitsyn, Corresponding Member, USSR Academy of Sciences. See SOV/2681 for titles of volumes of the set. References appear at the end of the articles.

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AUTHORS: Granovskiy, V.L., Luk'yanov, S.Yu., Spivak, G.V. and Sirotinko, I.G.

TITLE: Report on the Second All-Union Conference on Gas Electronics

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1359 - 1358 (USSR)

I.M. Podgorny and M.G. Koval'sky - "New Data on X-ray Radiation During Pulse Discharges".

V.A. Khrabrov and M.M. Sulkovskaya dealt with the investigation of the neutron radiation in powerful gas discharges in chambers with conducting walls.

L.A. Borisov et al. - "Investigation of the Gas Discharge in a Coaxial Chamber".

S.M. Osovets et al. - "A Turn of Plasma in Transverse Magnetic Field".

I.G. Kanaev "Data on the Division of a Cathode Spot on Mercury in a Low-pressure Arc" (see p 1289 of the journal).

L.E. Robbins (England) - "A New Theory of the Cathode Spot" (see p 1395 of the journal).

V.M. Strunova - "Positive Column in a Hydrogen Discharge With Stationary and Pulse Loads".

V.G. Nekrashevich and A.A. Lobud - "Current Distribution on the Surface of Electrodes in Electric Pulse Discharges".

L.S. Kyz - "Some Properties of Gas Discharge in Low-voltage Halogen Counters".

G.I. Gisetya and V.L. Granovskiy - "Comparison of the Initial De-ionization in the Isotope of Hydrogen (H and D)".

L.A. Arolishpa communicated some results on the pre-breakdown current pulses at low pressures.

M.Ye. Vasil'yeva and A.A. Zaytsev - "Charge-density Distribution Waves in Cylindrical Plasma".

L. Pekárek of Czechoslovakia communicated some information on the wave-like phenomena in gas-discharge plasma.

B.G. Brezhnev dealt with the problem of the determination of the energy of fast ions in pulse discharges.

B.B. Kadomtsev - "Convection Instability of a Plasma String".

K.V. Brushlinskiy and V.D. Shafranov - "Theory of a High-temperature Plasma String".

The fifth section was presided over by N.A. Kaptsov and dealt with high-frequency currents in gases. The following papers were read:

V.Ye. Golant - "Formation of Ultra-high Frequency Pulse Discharges in Inert Gases".

G.I. Paterok - "Influence of the Boundary Conditions on the Formation and Maintenance of High-frequency Discharges".

P.M. Bulkin et al. - "Investigation of a Self-maintained Ultra-high Frequency Pulse Discharge and the Process of its Development".

S.M. Zastenker and G.S. Solntsev - "Some Results of the Investigation of the Formation of Low-pressure High-frequency Discharges".

G. Marxman (USA) - "Conductivity of Weakly Ionized Plasma".

A.A. Kaspruchkov - "The Conditions of Transition From High-frequency Corona Discharge at Atmospheric Pressure".

V.A. Golant - "The Relationship Between the Character-istics of the Ultra-high Frequency Current and the Direct Current in Gas Discharges".

B.B. Lazarev analysed the conductivity of the discharge-generating plasma in the window of a resonance discharge tube.

S.M. Levitskiy and L.P. Shashurin dealt with the applicability of the probe method to high-frequency discharges (see p 1238 of the journal).

The paper by V.Ye. Mitenk et al. was devoted to the investigation of the ultra-high frequency plasma by means of the Stark effect.

G.S. Solntsev et al. dealt with the problem of electric fields in a high-frequency discharge at low pressures.

Ye. Radcev of Rumania read a paper entitled "High-frequency Discharges in Methane".

The work of the sixth section was devoted to the problems of plasma and its radiation; the section was presided over by V.A. Fabrikant. The following papers were read:

Ya.M. Lagen - "Methods of Probe Methods of Plasma Investigation"

V.I. Drozdov - "Oscillographic Measurements in Plasma".

V.A. Simonov and A.G. Nilesh'kin - "Investigation of the Movement of Plasma by Means of a Mass Spectrometer of the Transit Time".

A.V. Rubchinskiy - "A[illegible] of the Oscillations on a [illegible] of the Vapour of the

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AUTHOR: Brezhnev, B.G. (Moscow)

TITLE: Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 2, pp 54-58 (USSR)

ABSTRACT: It is known that pulse discharges at low pressures in deuterium are accompanied by X-ray and neutron radiations. The neutron yield is observed within a very short time interval which coincides in time with the maximum compression of the plasma. In this state the plasma is very unstable and this probably leads to the formation of powerful electric fields. In such a case the deutons, on passing through the zone of strong electric fields, get accelerated and their speed can be many times that which they would assume solely from the potential difference initially applied to the discharge tube (Ref 5). So far, only indirect evaluations are available of the deuton speeds, which were obtained in studying the spatial distribution of the neutrons and their energies (Refs 6, 7), which indicate that the plasma

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Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

may contain deutons with energies up to 200 keV. The author considered it of interest to measure directly the speeds of fast deutons. For this purpose he selected a method which permits measuring the energies within a wide range during a single powerful pulse discharge. By using the parabola method described by J.J. Thomson in 1911 (Ref 8) the author was able to measure the speed of ions within wide limits and to determine e/M with sufficient reliability. The photographic recording of the charged particles, the use of a permanent magnet for generating the magnetic field and dry batteries for producing the electric field, excluded entirely the influence of electromagnetic induction in measuring the ion energies. The measurements were carried out on a test rig as shown in Fig 1, consisting of an 80 cm long, 17.2 cm diameter cylindrical porcelain tube which was covered at the ends by metallic flanges. Through one of the flanges (the cathode) the air was pumped out to a vacuum of about 2 x 10-6 mm Hg. This flange was connected

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Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

to a cylindrical copper sheathing which contained the porcelain tube and was connected to the grounded plates of nine parallel-connected condensers of a total capacitance of 24.3 microfarads; this connection was also the negative connection of the current supply. The condenser battery was charged from a rectifier with a grounded minus to 40 kV and made to discharge between the flanges inside the porcelain tube which was filled with pure deuterium. After passing through a palladium filter the deuterium filled the measuring space which was connected with the tube before the discharge began. Prior to each test the tube was evacuated to high vacuum and was run in by multiple discharges until a sufficiently high neutron yield was obtained. A hole of 15 mm diameter in the cathode in the tube axis served as an exit for a beam of charged particles. Into this hole the tube of a special chamber was fitted on seals. This tube had two diaphragms with circular holes of 1 and 0.5 mm diameter; the first was covered with a

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Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

high speed response electromagnetic valve which can be opened 0.01 sec prior to the beginning of the discharge, putting automatically into operation the equipment for striking the discharge. After passing through the diaphragm of the connection tube the beam of charged particles falls into a flat box (4 x 4 x 1.8 cm) made of copper and located between two poles of a permanent magnet. Inside the box, on insulators, two parallel copper plates (4 x 4 cm) are placed, between which a discharge is produced by means of the electric field generated from dry batteries. This box is also connected with a metallic sleeve to the flat part of the chamber which carries a casette with films 9 x 12 cm. The ions from the plasma pass through the hole in the cathode and through the diaphragms, and from there into the zone of the parallel magnetic and electric fields, under the influence of which the ions changed their trajectory in such a way that on hitting the photographic plate, which was at a distance of 10 cm from the centre of the magnetic field, they produced a trace in the shape of a parabola

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Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

Each parabola corresponded to a certain value of e/M and each point on the parabola corresponded to a specific speed of the ion. In the centre of the plate there was a blackening in the form of a circle of 4 mm diameter, which was due to a straight beam of light, neutral fast particles, fast ions and ions with a larger mass which were hardly deflected at all by the electric and magnetic fields. If a coordinate system is put into the centre of this spot, it is possible to determine the values of e/M from the equation:

$$y^2 = z\ell e \frac{H^2}{EM} x \qquad (1)$$

since the constants of the instrument (z, ℓ), the potential of the electric field E, the potential of the magnetic field H, are known, and the coordinates x, y of any point of the parabola can be determined by measurement on the photographic plate, the speed of the ion can be determined from the equations

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Measurement of the Energy of Fast Ions in a Powerful Pulse Discharge

$$x = z\ell\frac{eE}{Mv^2}, \qquad y = z\ell\frac{eH}{Mv}.$$

The accuracy of this method is not very high, but it is very convenient for simultaneous measurement of the energies of ions from a few keV to hundreds of keV during a period of 8 microsecs. Each pulse discharge was effected at a gas pressure of 0.02-0.06 mm Hg with a discharge voltage of 40 kV and a maximum discharge current of $(1.5\text{-}2)\cdot10^5$ amp. The exposure time during one pulse discharge was of the order of a half cycle, equalling 8 microsec. When working with deuterium, the photographic plates were exposed in the presence of neutron radiation, on the average up to 10^8 neutrons per pulse. The results indicate that the neutron radiation during discharges in deuterium at low pressures in straight tubes is due primarily to the accelerating processes in the plasma thread which accelerate the deutons up to 200 keV. There are 2 figures and 8 references, of which 7 are Soviet and 1 is English.

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BREZHNEV, B.G.

Reports presented at the 5th Intl. Conference on Ionization Phenomena in Gases. Munich, 28 August - 1 September 1961.

a. G A Bailleredeyev, A M Andrianov, V F Denisov and V I Vasilyev
"Investigation of a Pulse Discharge in a Hollow Cylindrical Gas Sheath"

b. B G Brezhnev Yu S Nikolaev
"Energy Measurements of Fast Electrons Formed During a Powerful Pulse Discharge" Counter

c. A B Beresin, A M Zaydel, and G M Malyshev
"On a Method of Spectrallicyopic Investigation of the Hydrogen Discharge Chamber Walls Interactions"

d. V F Kitayeva N N Sobolev
"On the Hydrogen Lines Broadening Under the Carbon Arc and Detonation Wave Conditions"

e. B G Alibaev R A Dautkhanov, A V Kunin, G G Podkovyrov, G L Shcherbakov
"An Investigation of Plasma Diffusion in the Magnetic Field"

f. V S Komelkov, Yu V Skvortsov V N Tereshchenko S S Terentiyev
"Dynamical Current Cont"

g. N N Sobolev
"A Spectroscopically Studied State of Gases Following the Detonation Wave"

h. B N Klyarfeld, Ye S Solovyev N V Tolmachev
"Molecular Hydrogen Ionization by Gas Hydrogen Atoms"

i. I P Flerov, G N Churilov
"Ionization of Gases Induced by Multi-charged Ions"

j. P M Morozov, L E Tikhonov
"The Source for Molecular Hydrogen Ions Formation at the Ogra Device"

k. A L Bolotnikova V V Kuznetsov N P Malakhov N N Semashko
"Injection of an Ions Beam into the Ogra Magnetic Trap"

l. V Ye Yurasova
"On Directed Emission of Particles from a Copper Single Crystal Sputtered by Bombardment with Ions"

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ACC NR: AP6012186

SOURCE CODE: UR/0386/66/003/008/0321/0323

AUTHOR: Belyayev, V. A.; Brezhnev, B. G.; Yerastov, Ye. M.

ORG: none

TITLE: Measurement of the cross sections of ion-atom collisions at low energies by the method of overtaking beams

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 8, 1966, 321-323

TOPIC TAGS: ion beam, ion interaction, atom, particle collision, collision cross section

ABSTRACT: It is shown that the difficulties involved in the measurement of the cross sections of ion-atom collisions at energies below ~100 ev by customary methods can be eliminated by providing conditions whereby the two colliding particles, while having a low energy relative to each other, but each particle has sufficiently high energy in the laboratory frame. The low interaction energy is brought about by having the two particles have a small difference in velocity at the instant of collision. Conditions of this kind can be obtained when monochromatic particle beams cross at a small angle ("overtaking beams"). A similar idea was recently advanced by S. M. Trujillo et al. (IV Int'l. Conf. on the Physics of

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Electronic and Atomic Collisions, Quebec, 1965). The authors have constructed a setup based on the described principle, and carried out preliminary measurements. The process chosen for investigation was resonance charge exchange of protons with hydrogen atoms. The proton beam came from an ion source of the oscillating type. The mixed atom-ion beam was obtained by partial charge exchange of a beam of (1150 ± 9) ev protons, with a gas target ahead of the entrance to the collision chamber. The protons produced from the atoms as a result of the charge exchange in the collision chamber acquired on leaving the collision chamber an additional energy, which made it possible to separate them subsequently from the total particle stream and to register them. The cross section of the process was calculated from the current of these newly produced protons. The cross section value obtained in a preliminary experiment, $(5.45 \pm 1.35) \times 10^{-15}$ cm^2 at an energy (31.8 ± 3.6) ev, is in satisfactory agreement with the only experimental results obtained for this interaction in this energy range. It is concluded that the overtaking-beam method can be used to study not only collisions between ions and atoms of the same element but also ion-ion and ion-atom collisions for different vapors and gases (both atomic and molecular), and is therefore quite promising for the study of ion-atom collision processes at low energies, down to fractions of an electron volt. The authors thank L. A. Artsimovich, M. K. Romanovskiy, and A. M. Andrianov for the opportunity to

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perform the work and for continuous interest, and N. V. Fedorenko, V. V. Afrosimov, and R. N. Il'in for a discussion of the method.

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BREZHNEV, D., akad.

The great program for the reorganization of the Soviet village.
Selskostop nauka 1 no.4/5:399-405 '62.

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BREZHNEV, D. D.

Selection and Seed Growing for Vegetable Crops at VIR.
Agrobiologiya, No. 3, 1948, Sel'khozgiz, pp 63-71.

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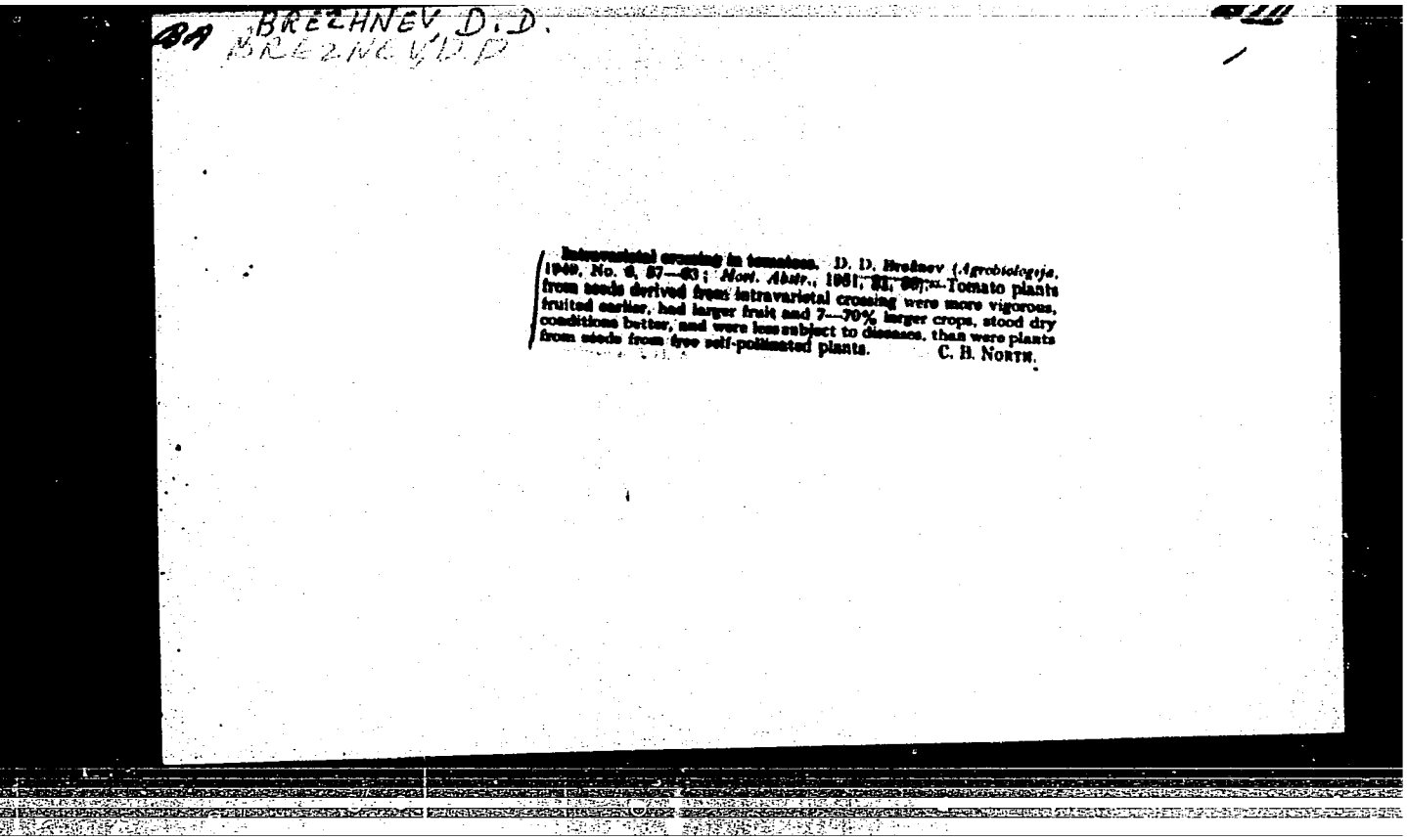

BREZHNEV, D.D.

Intravarietal crossing in tomatoes. D. D. Brežnev (*Agrobiologija*, 1949, No. 6, 57—63; *Hort. Abstr.*, 1951, 21, 307).—Tomato plants from seeds derived from intravarietal crossing were more vigorous, fruited earlier, had larger fruit and 7—70% larger crops, stood dry conditions better, and were less subject to diseases, than were plants from seeds from five self-pollinated plants. C. B. North.

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BREZHNEV, D. D.

Agriculture

Vegetable and root-crop seed culture (for the northwest zone of the USSR); Moskva, Gos. izd-vo sel'khoz lit-ry, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

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4817* **Influence of Growing Conditions of Tomatoes on the Typical Quality of Seeds.** (In Russian.) D. D. Brezhnev. *Agrobiologia*, Jan.-Feb. 1951, p. 154-158.

The influence of growing conditions on the tendency of tomatoes to stay true-to-type was studied for several types of tomatoes. Data are discussed and tabulated.

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BREZHNEV, D. D.

USSR/Biology - Hybridization of Seed May/Jun 51

"Increasing the Vitality of Hybrid Seeds," D. D. Brezhnev, Ya. S. Ayzenshtat, All-Union Plant-Breeding Inst, Leningrad State U imeni Zhdanov

"Iz Ak Nauk SSSR, Ser Biol" No 3, pp 40-51

Investigated vitality of hybrid offspring, as dependent on condition of parents and their reproductive elements at moment of crossing by studying inherited characteristics of hybrid tomatoes. Selection of time of crossing can considerably increase harvest of hybrid seeds. Preliminary grafting and supplementary pollination by plants of another species also affect vitality of offspring favorably.

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BREZHNEV, D. D., ALEKSANDROV, S. V.

Tomatoes

New system of seed culture for hothouse varieties of tomatoes and cucumbers. Sad i og. no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____1953. Unclassified.

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